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## ABSTRACT

Recognition of the numerous factors that produce and affect the levels of stress existing within the teaching profession serve to reveal the complexities that exist in reducing this stress. In addition, accurate identification of the sources of teacher stress is necessary in order to determine how it can be reduced. The purpose of this case study was to identify the sources of teacher stress through the use of a survey and the Teacher Stress Inventory. The organizational characteristics measured were: tight time constraints, heavy workloads, low income, limited career advancement, high student discipline and student interaction problems, high autonomy and low participation in decision-making, and low collegiality. Individual characteristics examined were gender and a single factor combining age and teaching experience. The significant findings of this study in relation to stress were the age of the teacher and the amount of teaching experience of the teacher. Implications and directions for future research are also discussed. (Contains 37 references and 7 tables.) (GCP)

Running Head: Teacher Stress

ED 467 833

Teacher Stress: A Case Study

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## Teacher Stress

Stress is a complex phenomenon that has been defined and analyzed by a multitude of researchers employing a variety of methods. According to Hinkle (1973), stress includes things such as hardship, adversity or affliction, force, pressure and strain. In the field of engineering, stress is described as an external force directed at some physical object, resulting in strain and the temporary or permanent distortion in the objects structure (Lazarus, 1966). Selye (1956) referred to the stimulating conditions which produce stress reactions in human beings as stressors, and the state of the human being or the reaction itself, as stress.

Typical of people-contact professions, teaching is suffused by potentially stressful events and circumstances (Fastenau & Fimian, 1988). Teachers are continuously interacting with a multitude of students, parents, colleagues, and administrators, each of whom have different problems and make different demands (Dunham, 1992; Dworkin, Haney, Dworkin, & Telschow, 1990). These demands require that the teacher make quick, personal responses to individuals who may have unpredictable problems (Dworkin, et al., 1990).

An awareness of the tremendous amount of day-to-day personal interactions that are a part of the routine of a teacher led to a considerable amount of research in an effort to understand the thought processes of teachers and how they are effected by these interactions (Clark & Peterson, 1986). As a result, the prevalence and sources of occupational stress among teachers has become an increasingly popular topic of research (Kaiser & Polczynski, 1982; Kyriacou & Sutcliffe, 1978). This research will examine two components of stress for teachers: organizational characteristics and individual characteristics.

There are numerous organizational characteristics identified in the research literature that positively correlate with teacher stress. They include time management, tight time constraints and heavy workloads, professional distress (low income and

limited career advancement), discipline and motivation (high student discipline and student interaction problems), professional investment (high autonomy and low participation in decision making), and low collegiality. A brief review of the literature in these areas follows.

Time constraints are frequently noted as major factors in producing stress for teachers (Borg, Riding, & Falzon, 1991; Gmelch & Burns, 1991; Harris, Halpin, & Halpin, 1985; Kyriacou & Sutcliffe, 1978; Montalvo, Bair, & Boor, 1995; Smith & Bourke, 1992). The heavy workload associated with teaching is frequently cited as a stress producer (Carnegie Foundation, 1984; Montalvo, et al., 1995; Raschke, Dedrick, Strathe, & Hawkes, 1985; Seldin, 1987, Yagil, 1998). Several studies (Gmelch, Wilke, & Lovrich, 1986; Happ & Yoder, 1991; Pelberg & Keinan, 1988) note the tremendous responsibility and numerous demands that accompany teaching. Research also points to inadequate resources as a problem continuously faced by educators (Borg, et al., 1991; Fuller, 1997; Gmelch, et al., 1986; Harris, et al., 1985; Lowenstein, 1991; Swick, 1989). Teachers frequently mention concerns over career advancement and professional growth (Feiman-Nemser & Floden, 1986; Lowenstein, 1991; Montalvo, et al., 1995; Swick, 1989). Factors such as teacher recognition, student misbehavior, and poor colleague relations are also stated as sources of stress (Borg & Riding, 1993; Boyle, Borge, Falzon, & Baglioni, 1995; Chen, Miller, Cooper, & Wilson, 1995; Lowenstein, 1991; Smith & Bourke, 1992). Numerous studies emphasize administrative bureaucracy as an obstacle to teachers and as a source of anxiety (Bacharach, Bauer, & Conley, 1986; Blasé, 1986; Brissie, Hoover-Dempsey, & Bassler, 1988; Humphrey & Humphrey, 1986).

In addition to an awareness of organizational factors and an understanding of how teachers think in general, an analysis of individual characteristics is an important consideration. The interaction between the individual teacher's internal characteristics and the environment (organizational characteristics) determines the degree of stressful

impact on the individual teacher (Gmelch & Burns, 1991; Kaiser & Polczynski, 1982). Personality, age, gender, and marital status of the individual helps determine the level where stress becomes dysfunctional or challenging (Chen, et al., 1995; Kyriacou & Sutcliffe, 1978, Montalvo, et al., 1995; Ushasree, Seshu, Reddy, & Vinolya, 1995).

The degree of collegial support appears to be a mitigating factor between the individual teacher's internal characteristics and the environment. Boyle, et al. (1995) identified poor colleague relations as a factor contributing to teacher stress. Chakravotry (1989) indicated the importance of establishing support systems among teachers; it facilitates coping and also reduces stress. Through various research studies, Swick (1989) identified supportive environments as areas where teachers were able to deal with stress in an effective manner. If teachers are in an environment where support is exhibited, they will experience less stress and/or will have the support of others when expressing stressful situations. Therefore, it is of great importance to encourage positive and supportive relationships among the teachers.

Recognition of the numerous factors that produce and affect the levels of stress existing within the teaching profession serve to reveal the complexities that exist in reducing this stress. In addition, accurate identification of the sources of teacher stress is necessary in order to determine how it can be reduced. The purpose of this case study was to identify the sources of teacher stress through the use of a survey and the Teacher Stress Inventory (Fimian, 1988). The authors hoped to clarify both individual and organizational characteristics that may contribute to teacher stress in school settings.

### Subjects

*Elementary School*

Three working class communities make up a Midwestern school district that is a part of a larger metropolitan area. The local area has three colleges and several large medical facilities, thus attracting a large professional population. The area is also the largest business community in the state. Because of an increasing school population,

a new high school was built in 1989 to better accommodate the growing student body. A new addition, which almost doubled the size of the school and moved the ninth grade from the middle school to the high school, was built in 1993. The school population of students in grades K-12 in 1992-93 was 4,542 students.

### Method

#### Faculty Survey

The faculty survey was developed for the school's North Central Accreditation process. Four surveys were created to examine the responses of seniors, former students, parents, and teachers. Six committees of school personnel were involved in the development of questions that addressed curriculum, facility, student learning, teaching time, technology, and teacher compensation. Each committee focused on one area. Committees developed initial questions/statements that were reviewed by the first author. Ongoing dialogue occurred between committees and the first author regarding survey questions with a particular emphasis on whether the questions asked for the information they wanted in the form in which they wanted it. Questions were written in a multi-point (three or more alternatives) recognition (forced response) test format that could be scored dichotomously. Along with the faculty survey, teachers were also given a demographic sheet, and the Teacher Stress Inventory.

#### Teacher Stress Inventory

The Teacher Stress Inventory is a widely used inventory and is designed for full-time teachers actively involved in the instruction of children and youth. It can be used in three ways: (a) individually for teachers who want to assess their stress level, (b) in group settings such as workshops and (c) surveys conducted by the school, the system, or the state. The inventory is an indicator of not only physiological and behavioral stress, but also other symptoms and was chosen because of the interest in individual and organizational characteristics of stress. As a result of using this instrument, conclusions can be made identifying events that trigger stress (time

management, work-related stressors, professional distress, discipline and motivation, professional investment) and also those events that are manifestations of stress (emotional, fatigue, cardiovascular, gastronomical, behavioral) (Fimian, 1988).

Respondents use a Likert scale of 1 to 5 to respond to individual items listed under each of the stress sources and manifestations. The average score for each source and manifestation is calculated. These average scores are then added together and divided by ten (the total number of source and manifestation areas) to obtain the overall stress score. In terms of reliability, alpha reliability coefficients ranged from .75 to .86 for stress sources, .78 to .88 for stress manifestations, and .93 for total stress scores with a combined sample of 3,401 regular education and special education teachers (Fimian, 1988). Test-retest reliability (2 week interval) coefficients in a random sample of 14 special education teachers ranged from .81 to .93 for stress sources, .95 to .99 for manifestations, and .99 for total stress scores (Fimian, 1988). Convergent validity was established through correlations with: significant other ratings, personal and professional characteristics, and psychological, physiological, and organizational constructs (Fimian, 1988).

### Results

Correlations were run on organizational and individual characteristics that have appeared in the research literature as positively correlated with teacher stress. These characteristics were drawn from the demographic sheet, survey items, and the Teachers Stress Inventory (TSI) given to respondents. The organizational characteristics measured were: tight time constraints, heavy workloads, low income, limited career advancement, high student discipline and student interaction problems, high autonomy and low participation in decision-making, and low collegiality. Individual characteristics examined were gender and a single factor combining age and teaching experience.

There were 60 respondents involved in the study: 34 were male (57%) and 26

female (43%). The age range for respondents was 23 to 63. All respondents were Caucasian. In terms of marital status: 7 were never married (11.7%), 49 were married (81.7%), and 2 were divorced (3.3%). Both age and total years of teaching experience were used to separate respondents into groups. Groups were formed on two considerations: a logical division of teaching experience and an attempt to approximately balance the group sizes. Group 1 consisted of 15 individuals who ranged in age from 23 to 30. Group 2, 18 individuals, were over 30 years old and had taught for 15 years or less. Group 3 had 27 individuals who were also over 30 years old and had taught for over 15 years. While all respondents were given the demographic sheet, survey, and TSI, not all of the respondents completed all of the items on the TSI.

Table 1 shows the correlations between select items on the demographic sheet, the survey, and the TSI. One-tailed significance levels for the correlation coefficient were completed because a positive correlation was expected. T-tests and analysis of variance procedures were conducted to test for differences in organizational characteristics among the groups.

In terms of TSI time management scores, make-up work for students (survey item) was negatively correlated to stress ( $r = -.24$ ,  $p = .044$ ) while work related stressors were positively correlated with survey items of extracurricular activities ( $r = .41$ ,  $p = .001$ ) and interruption/cancellation of hours ( $r = .33$ ,  $p = .008$ ) reducing classroom teaching time. For TSI work-related stressor scores, only survey items of a need for a second preparation period ( $r = .27$ ,  $p = .026$ ) and a need for teacher work days ( $r = .29$ ,  $p = .016$ ) were correlated with stress. TSI scores for professional distress showed significant correlation to the survey item of need for extra pay for study hall ( $r = .30$ ,  $p = .015$ ). Correlations between TSI scores on professional distress and the survey item related to adequate funding for professional leave showed positive correlation ( $r = .29$ ,  $p = .016$ ): those who agreed that funding was adequate had low



professional distress scores. There were no significant correlations between TSI scores on discipline and motivation and the effectiveness of detention. There were significant correlations between TSI scores on professional investment and survey items for curriculum change satisfaction ( $r = .29$ ,  $p = .017$ ) (those satisfied with curriculum change had low professional investment stress) and opportunity to choose in-services ( $r = .36$ ,  $p = .003$ ) (those who thought they should be able to choose in-service offerings had high professional investment stress).

The means were computed for each TSI section: time management, work-related stressors, professional distress, discipline and motivation, professional investment, emotional manifestations, fatigue manifestations, cardiovascular manifestations, gastronomical manifestations, and behavioral manifestations. These means are shown on Table 2. Means for the total sample were computed, as well as separate means for each age/teaching experience group.

T-tests for independent samples were done on each of the TSI categories comparing the marital status groups: single or divorced vs. married. Eight of the respondents were single or divorced and 47 were married. The results are shown in Table 3.

Results were analyzed using an independent-samples t-test. This analysis revealed a significant difference between the two groups, on behavioral manifestations,  $t(53) = -4.00$ ;  $p < .0005$ .

T-tests for independent samples were completed to look at possible differences between the genders on each of the TSI categories. The results are shown in Table 4.

Results were analyzed using an independent-samples t-test. This analysis failed to reveal a statistically significant difference between the two groups on any of the TSI categories.

Table 5 shows two items that were examined in terms of collegiality and stress in terms of the three groups of teachers (Group 1: <30 years old, <15 years teaching

experience; Group 2: >30 years old,  $\leq 15$  years teaching experience; Group 3: >30 years old, and >15 years teaching experience). Cross tabulations were done looking at peer support and supervisor support within these three groups. The first item, which looked at peer support, had 50 respondents who answered "yes" to this item and 2 who answered "no." As a result of the small  $n$  in the "no" response, further analysis was stopped.

The second item, which looked at mutual support with one's supervisor, showed 100% of Group 1 feeling the support compared with 53% in Group 2 and 58 % in Group 3. Forty-seven percent of Group 2 did not feel this support as did 42% of Group 3. A chi-square test of independence indicated that there is a relationship between the age/experience group and presence/absence of supervisor support (chi-square value = 7.95,  $p = .01878$ ).

Results of the emotional manifestation scores of the TSI were further analyzed using a two-way ANOVA, with two between-groups factors, to examine the effect of the presence/absence of supervisor support and the effect of the age/experience group as shown in Table 6. This analysis revealed a significant main effect for supervisor support,  $F(1, 46) = 4.70$ ;  $p = .035$  and a significant main effect for group,  $F(2, 46) = 3.44$ ;  $p = .040$ . The mean score for "yes" responses, that is, for those receiving supervisor support was 2.39 ( $sd = .77$ ) and the mean Emotional Manifestation score for "no" responses was 2.88 ( $sd = 1.10$ ). Mean scores for each group are in Table 6. The interaction effect between supervisor support and age/experience group was insignificant  $F(1, 46) = 1.88$ ;  $p = .177$ .

Independent sample t-tests were done on the TSI organizational characteristics, comparing the responses of the two groups, those with supervisor support compared to those without supervisor support. The results are shown in Table 7 where work-related stressors ( $t(49) = -.30$ ,  $p = .004$ ), professional distress ( $t(48.82) = -7.34$ ,  $p < .0005$ ), and professional investment ( $t(49) = .409$ ,  $p < .0005$ ) were statistically

significant.

### Discussion

Correlation coefficients indicated that in terms of time management, teachers did not find make-up work for students at all stressful, in fact, the negative correlation indicates teachers may value this type of work in their job. Extra curricular activities and interruption/cancellation of classroom teaching hours was found to be stressful with regard to work-related stressors and needs for a second preparation period and teacher work days were correlated with higher work-related stressor scores. In terms of professional distress, teachers viewed the need for pay for study hall as being related to stress, and they viewed a lack of professional leave funding as contributing to their stress. Stress in terms of professional investment was related to the current method for curriculum change and a lack of opportunity to choose inservices.

In terms of marital status, the only statistically significant difference was in terms of behavioral manifestations. Married teachers showed higher behavioral fatigue: mean = 1.41 compared to a mean of 1.06 for unmarried teachers. There were no significant findings in terms of gender difference.

With regard to collegiality, there was variation among age-teaching experience groups with respect to the amount of mutual support they felt from their supervisors. Those teachers under 30 years of age with less than 15 years teaching experience unanimously reported feeling support from their supervisors. Those teachers over 30 years of age with 15 years or less than 15 years teaching experience were least likely to feel support from their supervisors. Teachers who felt less supervisory support had the higher mean Emotional Manifestation stress scores. In examining the mean Emotional Manifestation scores among the group, the results showed significant differences both among the three age-teaching experience groups and between the presence/absence of supervisor support, but there was no interaction effect between these items so the results cannot be explained entirely. It is possible that the empty

cell for members of Group 1 or that the range of responses (Table 6) within Group 2 limited the analysis.

This study suggests that future teacher stress research involve careful examination of the types of teachers being studied (this was a relatively homogeneous group) and the types of schools in which they work (how the particular stressors show themselves within that system). The significant findings of this study in relation to stress were the age of the teacher and the amount of teaching experience of the teacher. These two factors were especially important when examining the need for supervisor support. Those teachers over 30 years old with less than 15 years teaching experience felt less support from their supervisors and experienced higher emotional manifestation of stress. While this finding needs to be researched further to determine if it is unique to this setting or common among teachers, there is some support in the literature for these findings. Yagil (1998) found inexperienced teachers in Israel manifested an overall stress level and Lowenstein (1991) stressed the importance of reducing the sense of isolation.

It may be beneficial for school systems to determine if additional support from supervisors is needed to reduce the stress for "older" teachers with less teaching experience. Although additional support may be idiosyncratic for each teacher, approaching the teacher in a sensitive, personal manner with regard to supervisory support may result in long-range benefits for the school system. Brownell (1997) states that stress can reduce a teacher's motivation. Therefore, it is important for the stress to be managed. Litawski (1997) also emphasizes the importance of managing the stress in the teaching profession. School systems can assist teachers in this process by sensitively and individually determining if the teachers have enough support from their supervisors. Such intervention may assist the teachers, students, and the overall school.

## References

Bacharach, S. B., Bauer, S. C., & Conley, S. (1986). Organizational analysis of stress: The case of elementary and secondary schools. Work and Occupations: An International Sociological Journal, 13, 7-32.

Blasé, J. J. (1986). A qualitative analysis of source of teacher stress: Consequences for performance. American Educational Research Journal, 23, 13-40.

Borg, M. G., & Riding, R. J. (1993). Teacher stress and cognitive style. British Journal of Educational Psychology, 63, 271-286.

Borg, M. G., Riding, R. J., & Falzon, J. M. (1991). Stress in teaching: A study of occupational stress and its determinants, job satisfaction and career commitment among primary schoolteachers. Educational Psychology, 11, 59-75.

Boyle, G. J., Borg, M. G., Falzon, J. M., & Baglioni, A. J. (1995). A structural model of the dimensions of teacher stress. British Journal of Educational Psychology, 65, 49-67.

Brissie, J. S., Hoover-Dempsey, K. V., & Bassler, O. C. (1988). Individual, situational contributors to teacher burnout. Journal of Educational Research, 82, 106-112.

Brownell, M. (1997, September/October). Coping with stress in the special education classroom. Teaching Exceptional Children, 30, 4, 6.

Carnegie Foundation. (1984). Survey of college faculty: The faculty deeply troubled. Change, 17, 31-34.

Chakravotry, B. (1989). Mental health among school teachers. In M. Cole & S. Walker (Ed), Teaching and Stress (p 79). Philadelphia: Open University Press.

Chen, M., Miller, G., Cooper, D., & Wilson, T. (1995). Taiwanese junior college teachers' stress: counseling implications.

Clark, C. M., and Peterson, P. L. (1986). Teachers' thought processes. Handbook of research on teaching, (3<sup>rd</sup> ed.). New York: Macmillan.

- Dunham, J. (1992). Stress in teaching (2nd ed.). New York: Routledge.
- Dworkin, A., Haney, C., Dworkin, R., & Telschow, R. (1990). Stress and illness behavior among urban public school teachers. Educational Administration Quarterly, 26, 60-72.
- Fastenau, P. S., & Fimian, M. J. (1988). Teacher occupational stress in the middle schools. Journal of North Carolina League of Middle Level Schools, 22, 38-41.
- Feiman-Nemser, S., & Floden, R. E. (1986). The culture of teaching. In Merlin C. Wittrock (Ed.), Handbook of Research on Teaching (pp 505-526). New York: Macmillan Publishing Company.
- Fimian, M. (1988). Teacher stress inventory. Brandon, VT: Clinical Psychology.
- Fuller, M. (1997, October). Now we are looked down upon as jerks. Times Educational Supplement, 4240, 19.
- Gmelch, W. H. & Burns, J. S. (1991). Sources of stress for academic department chairs: A national study. ASHE Annual Meeting Paper, ED 339306.
- Gmelch, W. H., Wilke, P. K. & Lovrich, N. P. (1986). Dimensions of stress among university faculty: Factors-analytic results from a national study. Research in Higher Educational Research Association. ED 339306.
- Happ, A. C. & Yoder, E. P. (1991). Stress, job satisfaction and the community college faculty. Paper presented at the annual meeting of the American Educational Research Association. ED 333920.
- Harris, K.R., Halpin, G., and Halpin, G. (1985). Teacher characteristics and stress. Journal of Educational Research, 78, 346-350.
- Hinkle, L. (1973). The concept of "stress" in the biological sciences. Science, Medicine, and Man, 1, 10-15.
- Humphrey, J. N. & Humphrey, J. H. (1986). Coping with stress in teaching. New York: AMS Press, Inc.

Kaiser, J. S., & Polczynski, J. J. (1982). Educational Stress: Sources, reactions, prevention's. Peabody Journal of Education, 10, 127-134.

Kyriacou, C., & Sutcliffe, J. (1978). Teacher Stress: Prevalence, sources ,and symptoms. British Journal of Educational Psychology, 48, 159-167.

Lazarus, R. (1966). Psychological Stress and the coping process. New York: McGraw-Hill.

Litawski, R. (1997, June). Do you twitch a lot? Fat or frigid? Smoke or drink too much? Times Educational Supplement, 4223, 20.

Lowenstein, L. F. (1991). Teacher stress leading to burnout: Its prevention and cure. Education Today, 41, 12-16.

Montalvo, A., Bair, J. H., & Boor, M. (1995). Teachers' perception of occupational stress factors. Psychological Report, 76, 846.

Perlberg, A., & Keinan, G. (1988). Stress in academe - a cross cultural comparison between Israeli and American academicians. ED 296265.

Raschke, D. B., Dedrick, C. V., Strathe, M. L., and Hawkes, R. R. (1985). Teacher stress: The elementary teacher's perspective. Elementary School Journal, 85, 559-564.

Seldin, P. (1987). Research findings on causes of academic stress. New Directions for Teaching and Learning, 29, 13-21.

Selye, H. The stress of life. New York: McGraw-Hill, 1956.

Smith, M., & Bourke, S. (1992). Teacher stress: Examining a model based on context, workload, and satisfaction. Teaching and Teacher Education, 8, 31-46.

Swick, K.J. (1989). Stress in teaching. Washington, D.C.: NEA Professional Library.

Ushasree, S., Seshu Reddy, B. V. & Vinolya, P. (1995). Gender, gender-role and age effects on teacher's job stress and job satisfaction. Psychological Studies, 40, (2), 72-76.

Yagil, D. (1998). If anything can go wrong it will: Occupational stress among inexperienced teachers. International Journal of Stress Management, 5, 179-188.



Table 1

Correlations between TSI, survey, and demographic items

Survey Items	TSI Scores			
	Time Management (Items 1-8)		Work-related Stressors (Items 9-14)	
	r	p	r	p
Announcements	-.08	.275	.13	.173
Students called to office	-.10	.233	.06	.339
Students called to counselors	.02	.436	.16	.135
Extracurricular activities	.22	.061	.41	.001*
Interruption/Cancellation of hours	.07	.317	.33	.008*
Make-up work	-.24	.044*	-.10	.234
Final scheduling	.02	.456	.01	.471
Work-related Stressors (Items 9-14)				
Counselor progress reports	.03	.411		
Attendance procedures	.09	.263		
Buff sheets	.19	.087		
Registration	.15	.142		
IEPs	.15	.143		
Parent-Communication Record	.06	.332		
Need for second preparation	.27	.026*		
Need for teacher work days	.29	.016*		
Professional Distress (Items 15-19)				
Extra pay for study hall	.30	.015*		
Compensation for 6th teaching hour	.20	.076		
Yearly income (Demographic sheet)	.01	.468		
Professional leave funding	.29	.016*		
Paid professional leave	.13	.179		
Discipline & Motivation (Items 20-25)				
Detention deters tardiness	-.08	.273		
Professional Investment (Items 26-29)				
Curriculum change satisfaction	.29	.017*		
In-service input	.21	.063		
Choice of in-services	.36	.003*		

\* = significant at .05 level

Table 2

Group mean scores for the TSI

		TSI Categories									
Group	Number of Responses	Time Management		Work-related Stressors		Professional Distress		Discipline/Motivation		Professional Investment	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
1	13 <30 years (age) <15 years (teaching)	3.3	.75	3.0	.84	3.3	.86	2.7	.79	2.4	.90
2	17 >30 years (age) <15 years (teaching)	3.5	.69	3.5	.79	3.7	.98	2.8	.77	2.7	.88
3	26 >30 years (age) >15 years (teaching)	3.4	.73	3.6	1.11	3.7	.93	2.8	.83	3.0	.97
Total	56	3.4	.72	3.4	.98	3.6	.93	2.8	.79	2.8	.94

Group mean scores for the TSI

		TSI Categories (Manifestations)									
Group	Number of Responses	Emotional		Fatigue		Cardio-vascular		Gastronomical		Behavioral	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
1	13	2.3	1.02	2.4	.86	2.2	1.01	1.9	.96	1.2	.43
2	17	3.0	1.10	2.6	.85	2.6	1.07	1.8	.80	1.5	.56
1. 3	26	2.3	.65	2.3	.92	2.0	1.02	1.8	1.08	1.4	.50
Total	56	2.5	.94	2.4	.87	2.2	1.04	1.8	.96	1.4	.50

Table 3

T-tests comparing mean TSI categories scores between married and non-married respondents

TSI Category	Mean	SD	t value	probability
Time Management				
not married	3.06	.681	-1.49	.14
married	3.47	.713		
Work-related Stressors				
not married	2.92	.886	-1.62	.11
married	3.52	.984		
Professional Distress				
not married	3.10	1.07	-1.56	.12
married	3.64	.878		
Discipline & Motivation				
not married	2.42	.816	-1.49	.14
married	2.86	.774		
Professional Investment				
not married	2.25	.906	-1.77	.08
married	2.88	.929		
Emotional Manifestations				
not married	1.98	.752	-1.85	.07
married	2.62	.938		
Fatigue Manifestations				
not married	1.83	.618	-2.12	.04
married	2.51	.875		
Cardiovascular Manifestations				
not married	1.96	1.030	-.81	.42
married	2.28	1.054		
Gastronomical Manifestations				
not married	1.29	.547	-1.66	.10
married	1.89	.995		
Behavioral Manifestations				
not married	1.06	.116	-4.00	.00*
married	1.41	.525		

\* = significant at .05 level

Table 4

Gender t values for TSI Scores

TSI Category	Mean	SD	t value	probability
Time Management			1.50	.14
female	3.55	.693		
male	3.26	.727		
Work-related Stressors			.67	.51
female	3.54	.980		
male	3.36	.986		
Professional Distress			.53	.60
female	3.66	.921		
male	3.52	.947		
Discipline & Motivation			-.05	.96
female	2.77	.672		
male	2.78	.888		
Professional Investment			-.61	.54
female	2.70	.997		
male	2.85	.894		
Emotional Manifestations			1.07	.29
female	2.66	.884		
male	2.39	.980		
Fatigue Manifestations			1.23	.23
female	2.55	.972		
male	2.26	.780		
Cardiovascular Manifestations			-.85	.40
female	2.11	1.137		
male	2.34	.956		
Gastronomical Manifestations			1.24	.22
female	1.97	1.071		
male	1.66	.845		
Behavioral Manifestations			.90	.37
female	1.42	.539		
male	1.30	.467		

Table 5

Cross tabulations and Chi-square results by groups

Supervisor Support	Group (age, teaching experience)			TOTAL
	age teaching 1(<30, <15)	age teaching (>30, <1)	age teaching (>30, >15)	
Yes	12 100%	8 53%	14 58%	34
No	0	7 47%	10 42%	17
TOTAL		15	24	51

$\chi^2$  Pearson Value 7.95, 2 df, Significance = .01878

Table 6

Mean Emotional Manifestations Score by Age/Experience Group and by Presence/Absence of Supervised Support

Supervisor Support	Age<30 Years Teaching <15 Years	Age>30 Years Teaching <15 Years	Age>30 Years Teaching>15 Years	TOTAL
Yes	N=12 Mean=2.43 SD = .99	N=8 Mean=2.55 SD = .72	N=14 Mean=2.26 SD = .61	N=34 Mean=2.39 SD = .77
No	N=0	N=7 Mean=3.51 SD = 1.32	N=10 Mean = 2.44 SD = .69	N=17 Mean=2.88 SD = 1.10
TOTAL	N=12 Mean =2.43  SD = .99	N=15 Mean=3.00  SD = 1.12	N=24 Mean=2.33  SD = .64	Overall Count=51 Overall Mean=2.55

Table 7

T-tests Comparing Mean TSI Responses Between Those with and Those without Supervisor Support

Category	Mean	SD	t-value	probability
Time Management			- .59	.559
Yes	3.4	.542		
No	3.6	.837		
Work-Related Stressor			-3.00	.004*
Yes	3.2	.798		
No	4.0	1.009		
Professional Distress			-7.34	.000*
Yes	3.2	.762		
No	4.4	.400		
Discipline & Motivation			-1.30	.198
Yes	2.7	.829		
No	3.0	.728		
Professional Investment			-4.09	.000*
Yes	2.5	.880		
No	3.5	.576		

\* = Significant at .05 level



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